Appendix A

Agency Correspondence

PBS&J

An employee-owned company

May 27, 2003

Mr. Allan Strand
Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Field Office
c/o Texas A&M Univ. at Corpus Christi
6300 Ocean Drive, Campus Box 338
Corpus Christi, Texas 78412-5599

PBS&J Job No. 441216.00

Dear Mr. Strand:

Sharyland Utilities, L.P. (Sharyland) is proposing to construct new electric transmission facilities in Hildalgo County, Texas. Specifically, Sharyland is planning to build a new 138-kilovolt (kV) DC tie transmission line between an AC/DC Converter Station and the Comision Federal de Electricidad (CFE) electrical system in the State of Tamaulipas, Republic of Mexico. The location of the study area is shown on the attached figure. The new line will be approximately 1 to 3 miles long, depending upon the route selected, and built on steel or concrete single-pole structures within a 100-ft wide right-of-way (ROW).

PBS&J is preparing an Environmental Assessment and Alternative Route Analysis for the project to support Sharyland's applications for a Certificate of Convenience and Necessity (CCN) from the Public Utility Commission of Texas (PUCT) and a Presidential Permit from the U.S. Department of Energy. PBS&J is currently in the process of collecting and evaluating environmental data for the study area. As part of this effort, we are requesting that your agency/office relate any comments or concerns that you may have regarding the potential environmental effects from the construction of these facilities within the designated study area. Alternative routes/sites will be evaluated following the analysis of the existing environment in the study area and Sharyland will consider using existing facilities and ROW wherever feasible. PBS&J would appreciate receiving your comments regarding the natural, cultural, or human resources of the study area that are of concern to your agency/office.

Your comments will be an important consideration in the evaluation of alternative routes and in the assessment of impacts. In addition, should you identify any area requiring permits, easements, or other approvals by your agency/office, we would also appreciate receiving this information. If you have any questions concerning this project or our request for information, please call me or Mr. France Davis at (512) 327-6840. Your earliest reply will be appreciated.

Sincerely,

Rob Reid

Rob Reid
Project Manager/Vice President

RRR:FD

attachment

cc: Mark Caskey (Sharyland)
France Davis (PBS&J)

206 Wild Basin Road, Suite 300 • Austin, Texas 78746 • Telephone: 512.327.6840 • Fax: 512.327.2453 • www.pbsj.com

Mr. Ken Merritt
Superintendent
Lower Rio Grande Valley NWR
U.S. Fish and Wildlife Service
Route 2, Box 202-A
Alamo, Texas 78516

Ms. Nancy Millar
President
Friends of the Wildlife Corridor
Route 2, Box 204
Alamo, Texas 78516

The Nature Conservancy of Texas
South Texas Office
P.O. Box 6281
McAllen, Texas 78502-6281

Ms. Selina King
Executive Director
Frontera Audubon Society
1027 S. Texas Blvd.
Weslaco, Texas 78596

Mr. Jim Chapman
Chairman
Lower Rio Grande Valley Chapter
Sierra Club
200 East 11th Street
Weslaco, Texas 78596

Sharyland Utilities Representatives will hand deliver the Informational Packets to the contacts on the following list.

The Honorable Ramon Garcia
Hidalgo County Judge
P.O. Box 58
Edinburg, Texas 78540

The Honorable Hector "Tito" Palacios
Hidalgo County Commissioner
Precinct 2
301 E. State
Pharr, Texas 78577

The Honorable Jose Flores
Hidalgo County Commissioner
Precinct 3
400 W. 13th St.
Mission, Texas 78572

Mr. Ken Jones
Executive Director
Lower Rio Grande Valley Development Council
311 N. 15th Street
McAllen, Texas 78501-4705

The Honorable Norberto Salinas
Mayor
City of Mission
1201 E. 8th Street
Mission, Texas 78572

Mr. Isauro Trevino
City Manager
City of Mission
1201 E. 8th Street
Mission, Texas 78572

Mr. Sergil Zavala
City Planner
City of Mission
1201 E. 8th Street
Mission, Texas 78572

Mr. Pat Townsend
Mission Economic Development Association
901 Business Park Drive, Suite 200
Mission, Texas 78573-0968

The Honorable Leo Montalvo
Mayor
City of McAllen
P.O. Box 220
McAllen, Texas 78505

Ms. Julie Anne Rankin
City Planner
City of McAllen
P.O. Box 220
McAllen, Texas 78505

Mr. Mike Perez
City Manager
City of McAllen
P.O. Box 220
McAllen, Texas 78505

Mr. Mike Allen
President
McAllen Economic Development Corporation
6401 S. 33rd Street
McAllen, Texas 78503

TEXAS HISTORICAL COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWERENCE OAKS, EXECUTIVE DIRECTOR

June 02, 2003

Rob R. Reid
Senior Manager/Vice President
PBS&J
206 Wild Basin Road, Suite 300
Austin, Texas 78746-3343

Re: Project review under Section 106 of the National Historic Preservation Act of 1966 and the Antiquities Code of Texas; Sharyland Utilities, L.P.'s proposed electric transmission line between an AC/DC Converter Station and the Comision Federal de Electricidad (CEF) electrical system, Tamaulipas, Mexico), Hidalgo County, Texas (PUC, U.S. Dept. of Energy)

Dear Mr. Reid:

Thank you for your correspondence describing the above referenced project. This letter serves as comment on the proposed federal undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission. As the state agency responsible for administering the Antiquities Code of Texas, these comments also provide recommendations on compliance with state antiquities laws and regulations.

The review staff, led by Debra L. Beene, has completed its review. Much of the study area has a moderate to high probability of containing cultural resources; therefore, a cultural resources survey may be required. However, without a specific project map we cannot determine whether the precise area of potential effect (APE) has been previously surveyed or whether one would have been necessary. We will be pleased to review the project again once we receive the requested information. To facilitate a quick review, consider having a PBS&J archeologist review the transmission line APE and determine whether it was previously surveyed and if not, locate the high probability areas for investigation.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal and state review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have any questions concerning our review or if we can be of further assistance, please contact Debra L. Beene at 512/463-5865.**

Sincerely,

for
F. Lawerence Oaks, State Historic Preservation Officer

FLO/dlb

PBS&J

An employee-owned company

December 3, 2003

Mr. Mark Denton
Texas Historical Commission
PO Box 12276
Austin, TX 78711-2276

Re: Draft Survey Report Submittal, Sharyland Utilities-Mexico Tie Transmission Line Project, Hidalgo County, Texas; PBS&J Project No. 441216.00

Dear Mr. Denton:

PBS&J hereby submits on behalf of Sharyland Utilities and their agent Sutherland, Asbill and Brennan, LLP., one copy of the draft survey report for the Sharyland Utilities-Mexico Tie Transmission Line Project, Hidalgo County, Texas. This project requires your agency's review as a Section 106 undertaking, but does not require a state antiquities permit for archaeological investigation because the project area is and will be entirely privately owned. I look forward to receiving your concurrence or comments on the assessments and recommendations presented in the report. If you have any questions please feel free to contact me at 342-3367 or bmdixon@pbsj.com.

Sincerely,

Boyd Dixon

Dr. Boyd Dixon
Project Archaeologist

Xc: F. Davis, PBS&J w/o enclosure
J. Bushee, SAB w/o enclosure

Encl.

CONCUR

by _____
for F. Lawerence Oaks
State Historic Preservation Officer
Date 1/2/04

DRAFT
NOT APPLICABLE
Please submit ___ report copies
by _____
for F. Lawerence Oaks
State Historic Preservation Officer
Date 1/2/04

6504 Bridge Point Parkway, Suite 200, Austin, Texas 78730 • Telephone: 512.327.6840 • Fax: 512.327.2453 • www.pbsj.com

Federal Emergency Management Agency

Region VI
Federal Regional Center
800 North Loop 288
Denton, TX 76201-3698

June 10, 2003

Rob Reid
Project Manager
PBS&J
206 Wild West Road, Suite 300
Austin, Texas 78746

Dear Mr. Reid:

This letter is in response to your correspondence of May 27, 2003, in which you describe a project Hidalgo County, PBS&J Job Number 441216.00.

Hidalgo County participates in the National Flood Insurance program (NFIP). Therefore, all development must be reviewed by the County Floodplain Administrator, Ms. Sylvia Sanchez, to ensure compliance with the County Flood Damage Prevention Court Order.

If you require any further assistance, please feel free to call me at 940-898-5128.

Sincerely,

Carlton R. Watts

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
Corpus Christi Regulatory Field Office
5151 Flynn Parkway, Suite 306
Corpus Christi, Texas 78411-4318

REPLY TO
ATTENTION OF

June 10, 2003

Regulatory Branch

SUBJECT: D-14827

Mark Caskey
Sharyland Utilities, L.P.
4403 W. Military Road, Suite 712
McAllen, Texas 78503

Dear Mr. Caskey:

The U.S. Army Corps of Engineers (Corps) is responding to a request on your behalf, submitted by PBS&J, in letter dated May 27, 2003. The proposed project, Sharyland Electric Transmission Facilities, is located within Hidalgo County, Texas.

The Corps has the authority to regulate certain work under the provisions of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. Section 404 regulates the discharge of dredged and fill material into waters of the United States, which includes all tidal waters, and wetlands adjacent to tidal and nontidal waters. Isolated wetlands and outlying areas that are seasonally saturated may be regulated under the provisions of Section 404 depending on their relationship with interstate commerce.

The information you provided states that the project consists of the construction of new 138-kilovolt (kV) DC tie transmission line, approximately 1 to 3 miles in length, and built on steel or concrete single pole structures within a 100 foot wide right-of-way (ROW). While the information provided does not describe construction methods, the pipeline appears to cross the Rio Grande River, a water of the United States. If work is proposed for this area a Department of the Army permit will be required, in addition if work is proposed in any other water bodies or wetlands, a permit may be required. It is possible that impacts associated with transmission line installations would qualify for a Nationwide Permit 12 Utility Line Activities.

This preliminary determination is valid for 5 years from the date of this letter unless new information warrants a revision of the determination prior to the expiration date. Please reference determination number D-14827 in future correspondence pertaining to this project. If you have any questions concerning this matter, please contact Shelly Carter at the letterhead address or by telephone at 361-814-5847.

Sincerely,

Lloyd Mullins
Unit Leader,
Corpus Christi Regulatory Field Office

Enclosure

Copy furnished:

Rob Reid, PBS&J, 206 Wild Basin Road, Suite 300, Austin, Texas 78746

Texas Department of Transportation

AVIATION DIVISION

125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • 512/416-4500 • FAX 512/416-4510

June 12, 2003

Mr. Rob Reid / PBS&J
206 Wild Basin Road, Suite 300
Austin, TX 78746

Dear Mr. Reid:

I received your letter dated May 27, 2003, concerning the proposed construction of a electric transmission facility in Hildalgo County.

Title 14, US Code, Part 77 of the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) requires notice to the FAA if the facility to be constructed fits either of the below listed conditions:

77.13(2)(i) Any construction or alteration which obstructs a slope of one foot of vertical height for each 100' of horizontal distance out to a total distance of 25,000' from the nearest point on any runway at a public use airport with at least one runway, existing or planned, more than 3200' in length or:

77.13(1) Any construction or alteration of more than 200' above the surface of the ground at its location.

There is one public use airport which may be within the study area which meets the criteria of 77.13(2)(i): McAllen International Airport (KMFE) at 26-10-33.0N / 098-14-19.0W Airport Reference Point. If the proposed construction is within the above criteria, the FAA must be notified in four copies using FAA Form 7460-1, "Notice of Proposed Construction or Alteration". Copies are enclosed. Additionally, if within the criteria as above, the Director of Aviation for McAllen should be contacted at 2500 S. Bicentennial, McAllen, Texas 78503 (956) 682-9101 to coordinate any construction.

If you have any questions, please feel free to contact me at (512) 416-4507 or <wgunn@dot.state.tx.us>

Sincerely,

William B. Gunn

PBS&J

An employee-owned company

May 27, 2003

Ms. Linda Howard
Manager, Planning & Programming
Texas Department of Transportation
Department of Aviation
125 East 11th Street
Austin, Texas 78711

PBS&J Job No. 441216.00

Dear Ms. Howard:

Sharyland Utilities, L.P. (Sharyland) is proposing to construct new electric transmission facilities in Hildalgo County, Texas. Specifically, Sharyland is planning to build a new 138-kilovolt (kV) DC tie transmission line between an AC/DC Converter Station and the Comision Federal de Electricidad (CFE) electrical system in the State of Tamaulipas, Republic of Mexico. The location of the study area is shown on the attached figure. The new line will be approximately 1 to 3 miles long, depending upon the route selected, and built on steel or concrete single-pole structures within a 100-ft wide right-of-way (ROW).

PBS&J is preparing an Environmental Assessment and Alternative Route Analysis for the project to support Sharyland's applications for a Certificate of Convenience and Necessity (CCN) from the Public Utility Commission of Texas (PUCT) and a Presidential Permit from the U.S. Department of Energy. PBS&J is currently in the process of collecting and evaluating environmental data for the study area. As part of this effort, we are requesting that your agency/office relate any comments or concerns that you may have regarding the potential environmental effects from the construction of these facilities within the designated study area. Alternative routes/sites will be evaluated following the analysis of the existing environment in the study area and Sharyland will consider using existing facilities and ROW wherever feasible. PBS&J would appreciate receiving your comments regarding the natural, cultural, or human resources of the study area that are of concern to your agency/office.

Your comments will be an important consideration in the evaluation of alternative routes and in the assessment of impacts. In addition, should you identify any area requiring permits, easements, or other approvals by your agency/office, we would also appreciate receiving this information. If you have any questions concerning this project or our request for information, please call me or Mr. France Davis at (512) 327-6840. Your earliest reply will be appreciated.

Sincerely,

Rob Reid

Rob Reid
Project Manager/Vice President

RRR:FD

attachment

cc: Mark Caskey (Sharyland)
France Davis (PBS&J)

206 Wild Basin Road, Suite 300 • Austin, Texas 78746 • Telephone: 512.327.6840 • Fax: 512.327.2453 • www.pbsj.com

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
101 South Main Street
Temple, TX 76501-7602

June 12, 2003

Mr. Rob R. Reid
Project Manager/Vice President
PBS&J
206 Wild Basin Road, Suite 300
Austin, Texas 78746

Dear Mr. Reid:

We have reviewed the proposed construction of new electric transmission facilities in Hidalgo County, Texas. Based on the data submitted, the project should not have any adverse environmental impacts on the natural resources in the area. This office does not require permits, easements, or other approvals.

Thank you for the opportunity to provide comments on this proposed project.

Sincerely,

Salvador Salinas

For LARRY D. BUTLER, Ph.D.
State Conservationist

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Ecological Services - LRGV SubOffice
Phone: (956) 784-7560 Fax: (956) 787-0547
Rt. 2 Box 202-A
Alamo, TX 78516
June 13, 2003

Mr. Rob Reid
Project Manager
PBS&J
206 Wild Basin Road
Suite 300
Austin, Texas 78746

Consultation No. 2-11-03-I-0304

Dear Mr. Reid:

This responds to the letter received on June 2, 2003, regarding the effects of the proposed electric transmission facilities on species federally-listed or proposed for listing as threatened or endangered occurring within Hidalgo County, Texas. In addition, your project was evaluated with respect to wetlands and other important fish and wildlife resources.

Sharyland Utilities, L.P. (Sharyland) is proposing to construct new electric transmission facilities in Hidalgo County. Sharyland is planning to build a new 138-kilovolt (kV) DC tie transmission line between an AC/DC Converter Station and the Comision Federal de Electricidad (CFE) electrical system in the State of Tamaulipas, Mexico. The new line will be approximately 1 to 3 miles long, depending upon the route selected, and built on steel or concrete single-pole structures within a 100-ft wide right-of-way (ROW).

PBS&J is preparing an Environmental Assessment and Alternative Route Analysis for the project to support Sharyland's application for a Certificate of Convenience and Necessity from the Public Utility Commission of Texas. PBS&J is currently in the process of collecting and evaluating environmental data for the study area. Alternative routes/sites will be evaluated following the analysis of the existing environment in the study area and Sharyland will consider using existing facilities and ROW wherever feasible.

The following list provides current information on federally-listed species for the above county where your future project will occur. The list may include endangered and threatened species, as well as proposed species, candidate species, and species of concern. Proposed species are candidate species for which rules have been published in the Federal Register, nominating the species for threatened or endangered status. Candidate species have no protection under the Endangered Species Act of 1973, however, the Service has substantial information on candidate species to support their listing as threatened or endangered. The development and publication of proposed rules for listing candidate species are anticipated. Therefore, actions that might contribute to the listing of candidate species should be avoided. A letter designation follows the species name that represents the current federal status of the species. Within the list, the letters E, T, P, C, and SOC, represents the status of Endangered, Threatened, Proposed, Candidate, and Species of Concern, respectively. The acronym CH, indicates that there is Critical Habitat associated with the species, and P(CH) indicates that Critical Habitat has been Proposed for the species.

Hidalgo County

ocelot (Felis pardalis) - E
jaguarundi (Felis Yagouaroundi) - E
Northern aplomado falcon (Falco femoralis septentrionalis) - E
Texas ayenia (Ayenia limitaris) - E
Walker's manioc (Manihot walkerae) - E
Mountain plover (Charadrius montanus) - P/T
Audubon's oriole (Icterus graduacauda audubonii) - SOC
Brownsville common yellowthroat (Geothlypis trichas insperata) - SOC
Ferruginous hawk (Buteo regalis) - SOC
Loggerhead shrike (Lanius ludovicianus) - SOC
Northern gray hawk (Buteo nitidus maximus) - SOC
Sennett's hooded oriole (Icterus cucullatus sennetti) - SOC
Texas Botteri's sparrow (Aimophila botterii texana) - SOC
Texas olive sparrow (Arremonops rufivirgatus rufivigatus) - SOC
Tropical parula (Parula pitiayumi nigrilora) - SOC
White-faced ibis (Plegadis chichi) - SOC
Coues' rice rat (Oryzomys couesi aquaticus) - SOC
Reticulate collared lizard (Crotaphytus reticulatus) - SOC
Texas horned lizard (Phrynosoma cornutum) - SOC
Black-spotted newt (Notophthalmus meridionalis) - SOC
Rio Grande lesser siren (Siren intermedia texana) - SOC
Bailey's ballmoss (Tillandsia baileyi) - SOC
Falfurrias (milkvine) anglepod (Matelea radiata) - SOC
Runyon huaco (Manfreda longiflora) - SOC
Runyon's water-willow (Justicia runyonii) - SOC
Small papillosus (Echinocereus var. angusticeps) - SOC
Texas windmill-grass (Chloris texensis) - SOC
Subtropical blue-black tiger beetle (Cicindela nigrocoerula subtropica) - SOC
Maculated manfreda skipper (Stallingsia maculosus) - SOC

The Alternative Route Analysis study area indicated on the map includes several Lower Rio Grande Valley National Wildlife Refuge (LRGVNWR) tracts of land. These tracts of land include Madero, Tortuga Banco, Cottam and Gabrielson (please see attached map). The Service is concerned about environmental impacts to these refuge tracts that are part of the wildlife corridor. As you are aware, the Anzalduas International Bridge will be located between Cottam and Gabrielson refuge tracts which will fragment the wildlife corridor between these two tracts. The Service recommends plant surveys to be conducted if impacts to native brush or endangered species is required anywhere throughout the entire selected route. Also, if the project requires an easement through the Service's LRGVNWR tracts for a right-of-way, then it would require a compatibility determination conducted by the Refuge in association with right-of-way application. This compatibility determination is used to examine whether the proposed use interferes or detracts from the purpose for which the Refuge was established. No right-of-way can be issued if the project is determined to be incompatible. For further information on the application procedures, please contact Christina Montoya (Refuge Operation Specialist) for the LRGVNWR at (956) 784-7540.

Keep in mind that ten valley communities, TPWD and others including the Service are about to spend $21 million dollars on World Birding Centers to protect and to promote birdwatching to further the Rio Grande Valley's ecotourism industry. Bentsen State Park has been selected to be the main birding center for the entire Lower Rio Grande Valley. Birding in the Valley is conservatively worth over $100 million to the local economy annually, and is expected to grow in the Valley as an industry.

The ocelot and jaguarundi inhabit dense native brushland, generally occurring near watercourses, throughout South Texas. Population declines in both species of felids are primarily due to habitat loss associated with clearing of brush. In a July 7, 1992 report, "Potential Impacts of the proposed Anzalduas International Bridge upon Endangered Cats," Dr. Michael E. Tewes, the foremost recognized authority on ocelots and jagaurundi in South Texas, describes the results of his examination of two LRGNNWR tracts of native habitat that occur on either side of the proposed international crossing. The Gabrielson Unit includes the habitat tract immediately west of the proposed international crossing and the Cottam Unit includes the tract immediately east of the crossing. Dr. Tewes believes that a significant patch of optimal ocelot habitat covers much of the Gabrielson Unit. The southern portion of habitat within the Gabrielson Unit (the area parallel to the river) contains a less dominant shrub layer and would normally be classified as marginal or non-habitat for the ocelot. However, the proximity of the optimal habitat within the Gabrielson Unit lends a potential ocelot use value to this portion as (1) a "buffer habitat" to reduce the disturbance effects of anthropogenic activities, (2) "overflow habitat" for ocelots from nearby saturated optimal habitat, and (3) "travel habitat" for dispersing or transient ocelots. At the time of the report, it was quite possible that the Gabrielson Unit was either currently occupied by one or a few ocelots or may possibly experience periodic occupancy by dispersing or transient ocelots during the year.

According to Dr. Tewes' report, the Cottam Unit contained less optimal habitat than the Gabrielson Unit. Much of the Cottam Unit appeared to be old farmland undergoing successional transformation. Some areas within the Cottam Unit may contain optimal habitat, particularly sites within the resacas (ox-bow) landscape feature. Also, narrow corridor habitat occurs along the banks of the Rio Grande. A resident ocelot can regularly travel two to three miles within its established home range. Home range data from the Santa Ana National Wildlife Refuge (SANWR) demonstrated that ocelots will leave large patches and travel to surrounding sites. Consequently, the proximity of optimal habitat on the Gabrielson Unit similarly lends increased value to the habitats on the Cottam Unit. Additional tracts of native habitats occur along the river west of the Gabrielson Unit and east of the Cottam Unit, increasing the likelihood that ocelots move through both.

Ocelots frequently travel along habitat corridors parallel to linear water courses (e.g., resacas, rivers). Because two large tracts of acquires native habitat exists on both sides of the proposed international crossing, the vegetation adjacent to the river has additional value as a potential travel corridor for ocelots. The radio tracking of the ocelot on SANWR indicated this cat swims across the Rio Grande to use habitat on both sides of the river. Consequently, removal of habitat on either side of the river may have an impact on a resident ocelot.

Regarding other important fish and wildlife resources, please keep in mind that many bird species protected under the Migratory Bird Treaty Act may nest in an area containing trees or other suitable habitat. As the Federal agency responsible for the protection of migratory birds, the Service recommends vegetation disturbances potentially associated with these activities avoid the general nesting period of March through August or that areas proposed for disturbance be surveyed first for nesting birds, in order to avoid the inadvertent destruction of nests, eggs, etc.

Birds of prey (eagles, hawks, owls, etc) frequently use powerlines and support structures for perching and nesting. Raptors can be electrocuted while using power lines, thus contributing to the cumulative mortality factors effecting these biologically important sensitive species. Electrical distribution lines carrying voltages between 12kv to 69kV present the greatest threat of electrocution, in areas supporting high concentrations and diversity of raptors (e.g. southwest region of the United States).

Standard techniques have been developed to prevent raptor electrocutions at electrical distribution lines. The latest guidance is included in the publication: Suggested Practices for Powerlines-State of the Art in 1981/ Raptor Research. Report No. 4, Raptor Research Foundation, Inc. Department Veterinary Biology, University of Minnesota, St. Paul, MN 55108.

As a Federal agency responsible for the protection of migratory birds (including birds of prey), the U.S. Fish and Wildlife Service recommends that all new or modified electrical distribution lines be designed and constructed to prevent the electrocution of raptors, using the above referenced techniques. Proper design includes adequate separation of energized hardware or insulation of wires sufficient separation cannot be attained. The use of grounded steel cross-arm braces should be avoided. The measures should be implemented on each line and pole associated with new or converted lines. Failure to implement these measures could subject companies to civil or criminal liability under the Migratory Bird Treaty Act, Endangered Species Act, and Bald Eagle Protection Act.

With regard to wetland resources, many in the area occur as resacas (relic river oxbows), creek crossings, coastal/inland potholes, marshes, etc. Executive order 11990 asserts that each Federal agency shall provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. The U.S. Army Corps of Engineers should be contacted for permitting requirements under section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act, if it appears that proposed construction plans could impact wetlands.

The Service recommends that the alternative route to be selected avoid the LRGVNWR tracts of land; the process for a compatibility determination is lengthy and not guaranteed that a ROW will be given if it is found not compatible with what the refuge was established for. Also, select a route that avoids taking of ocelot habitat by avoiding or minimizing brush clearing along the route and along the river; leave a vegetation buffer along the river where the transmission line will cross into Mexico.

This letter is for general information only and does not constitute a review and clearance over potential effects to federally-listed species resulting from any specific project or activity. Upon completion of the route alternative selection and environmental document, the Service can then consult with your agency on the environmental impacts of the selected area. We appreciate the opportunity to provide pre-project planning information and look forward to providing any further assistance.

If we can be of further assistance, please contact Ernesto Reyes at the above letterhead and telephone number.

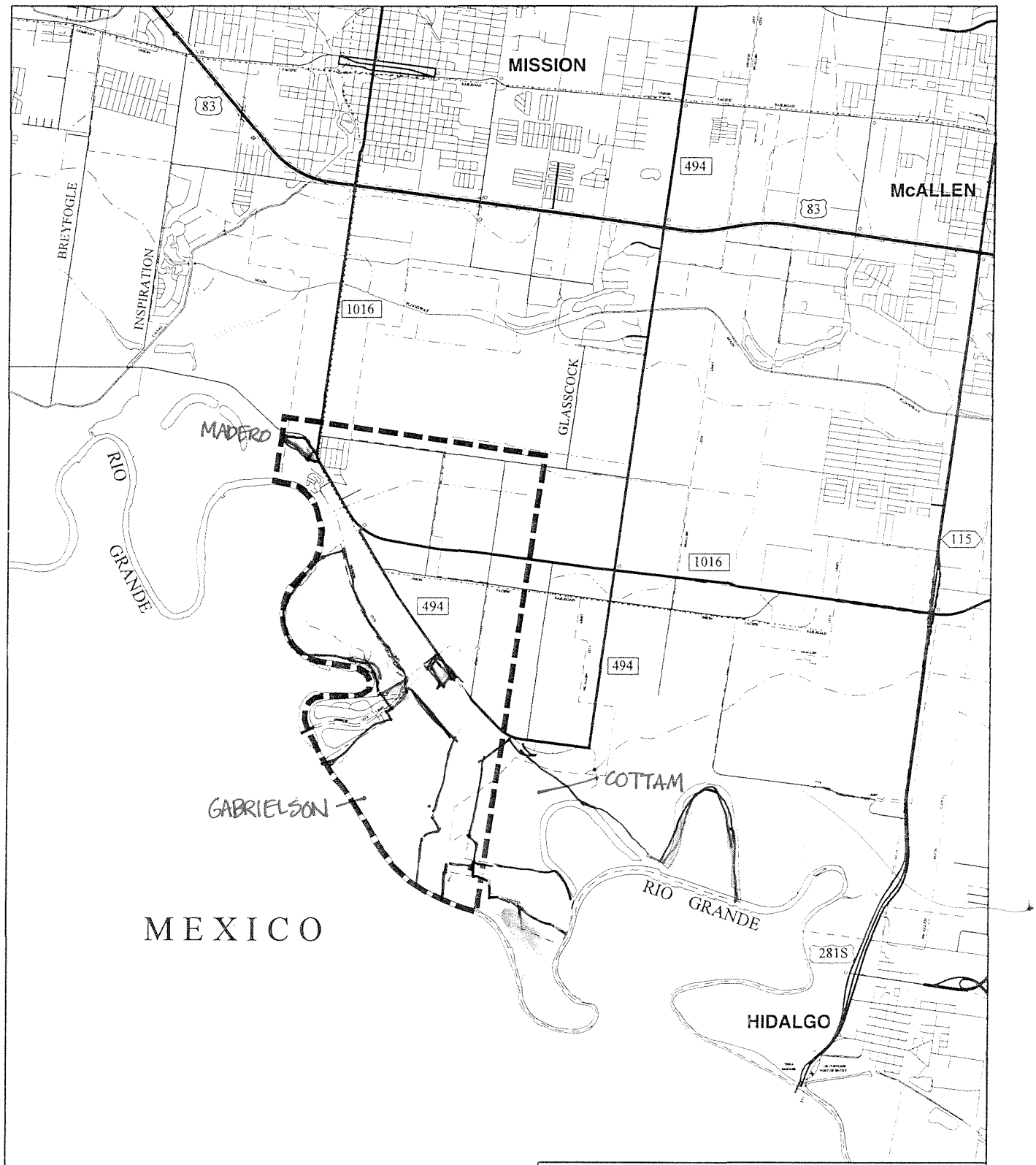
Sincerely,

Ernesto Reyes

Ernesto Reyes
Senior Fish & Wildlife Biologist

For
Allan M. Strand
Field Supervisor

cc:
Field Supervisor, U.S. Fish and Wildlife Service, Corpus Christi, TX
Christina Montoya, LRGVNWR ROS, Alamo, TX



PBSJ

• Engineering
• Environmental Consulting
• Surveying

STUDY AREA LOCATION

SHARYLAND – MEXICO DC TIE PROJECT

Base Map: TxDOT County Highway Map; Hidalgo County, Texas

I:/projects/hc1/sharyland/441216/cad/studyarea.dgn

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

JUL 3 0 2003

Mr. Rob Reid
Project Manager/Vice President
PBS&J
206 Wild Basin Road Suite 300
Austin, Texas 78746

Dear Mr. Reid:

The United States Section, International Boundary and Water Commission (USIBWC) appreciates the opportunity to provide comments on the Electrical Transmission Line crossing the Rio Grande in Hidalgo County, Texas, proposed by Sharyland Utilities, L.P. (Sharyland) described in your May 27, 2003 letter (PBS& J Job #441216.00). USIBWC staff attended a project briefing by Mr. James M. Bushee and Mr. Ralph Goodlet, at our Headquarters Office in El Paso, Texas, on June 18, 2003.

The USIBWC understands the proposed project is for the construction and operation of an electrical transmission line connecting services in Hidalgo County, Texas with facilities in Tamaulipas, Mexico. The installations will provide electrical service to customers in the southeastern Texas and northeast Tamaulipas, Mexico. The project proponent, Sharyland, is seeking authorization to construct, operate, and maintain electrical transmission facilities in both the United States and Mexico to import and export electrical energy. The new system will convert alternating current to direct current to allow transmission in two directions. The proposed project alternatives include construction and operation of up to 3 miles of transmission line. Sharyland is in the process of developing an Environmental Assessment and Alternative Route Assessment for the project to support a Certificate of Convenience and Necessity from the Public Utility Commission of Texas and a Presidential Permit from the United States Department of Energy. The final route for the transmission line has not been selected.

The route alternatives for the project include transmission lines which cross the Rio Grande and properties owned and/or managed by the USIBWC. Construction of structures within the floodway of the Rio Grande is not anticipated. The USIBWC must authorize the crossing of this property. The project description indicates the line will have a 100-foot wide right-of-way. The project description and environmental assessment should clearly indicate if clearing of this right-of-way in the Rio Grande floodway is required. Once the final alternative is selected, the proponent should contact the USIBWC for guidance on securing this authorization.

The USIBWC reviews the environmental impacts of each project in accordance with the agency procedures for implementation of the National Environmental Policy Act (NEPA). Typically this requires documentation that consultations with United States Army Corps of Engineers (USACOE), the United States Fish and Wildlife Service (USFWS) and the Texas Historical Commission (THC) have been completed. Based on the project description, one concern in this area is the migration corridor for the gulf coast jaguarundi and the ocelot. The USIBWC has implemented a modified maintenance program in some areas of the Rio Grande floodway to preserve this corridor. If the project crosses the corridor, the proponent should mitigate impacts in accordance with guidance from the USFWS. Impacts to migratory bird species and raptors must be evaluated. The proponent is encouraged to incorporate the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996, developed by the "Avian Power Line Interaction Committee." The USIBWC is concerned with impacts to transboundary air and water quality associated with development near the international boundary. In many locations along the international boundary, rapid development has resulted in detrimental impacts to shared air and water resources. Reasonably foreseeable development which is related to this project should be evaluated in accordance the Council on Environmental Quality guidance on cumulative impacts. In addition, ongoing maintenance work that will occur within the floodway must be evaluated. The Environmental Assessment supporting the Presidential Permit application should include most information required for the USIBWC evaluation.

The USIBWC requests that proposed construction activities be accomplished in a manner that does not change historic surface runoff characteristics at the international boundary. This requirement is intended to ensure that developments in one country will not cause damage to lands or resources in the other country. The proponent must ensure structures constructed along the United States/Mexico border are maintained in an adequate manner and that liability issues created by these structures are addressed.

The USIBWC must review the Environmental Assessment, draft drawings, and supporting documentation for the selected alternative. Drawings must show the location of each component in relation to the international boundary and the Rio Grande. One drawing should be a cross section of the Rio Grande illustrating the elevation of the power line crossing in relation to the flood level of the river and the top of the levees. The attached criteria provides guidance on allowable clearances for electrical and telephone lines. These criteria are general and are minimums based on residential voltages and telephone lines. Clearance must be adequate to ensure the safety of USIBWC equipment and personnel operating near the power line. Construction plans for the selected alternative and supporting information should be submitted to the USIBWC as soon as possible. The USIBWC requires that final engineering drawings be submitted to the USIBWC for review and approval prior to beginning construction of the proposed electrical transmission line and related facilities. Works in Mexico must be reviewed by the appropriate agencies in Mexico and be constructed in accordance with Mexican laws. USIBWC project authorization is limited to property within the United States of America. Typically, for an international project, the proponent from the United States joins with a business entity in Mexico and each firm secures the required authorizations in their respective countries.

Project proponests in Mexico should provide plans and project information to the Mexican Section of the International Boundary and Water Commission (MXIBWC) in Ciudad Juarez, Chihuahua, Mexico. The USIBWC requires that the proponent verify that coordination with proper authorities in Mexico is complete prior to construction.

Thank you for the opportunity to provide comments on the proposed electrical transmission line. Please continue to keep us informed with the progress of the project. If you have any questions regarding this information, please call me at (915) 832-4740.

Sincerely,

Sylvia A. Waggoner

Sylvia A. Waggoner
Division Engineer
Environmental Management Division

Attachment:
As stated

XIII ELECTRICAL AND TELEPHONE CRITERIA FOR OVERHEAD WIRE CROSSING

The overhead transmission line shall be constructed and maintained in such a manner as to provide a minimum vertical clearance (at the temperature of 60 degrees Fahrenheit) of not less than 28 feet above the levee crown and at least 12 feet (3.7 meters) above the floodway design high water surface level in the area of the floodway channel.

No structure (poles or guy wires) shall be located closer than 35 feet from the toes of any levee. No structure (poles or otherwise) shall be located closer than 15 feet from the top of any channel bank.

Guy wires may be anchored within the USIBWC right-of-way in such a manner that they do not interfere with the operation and/or maintenance of the channel, levees, or related structures. A witness post, not less than five feet (5') above the ground, shall be installed by each anchor or the cable shall be wrapped up to a point at least five feet (5') above the ground with a bright colored material to make it obviously visible.

It shall be the Sponsor's responsibility to maintain the areas clear of brush within a ten foot (10') radius of each pole, under the guy wires and around the anchors, on both sides of the levee and within the USIBWC right-of-way limits.

XIV LOW DAMS OR DIVERSIONS OF FLOWS

The Sponsor shall submit plans, hydraulic and structural computations and specifications for low dams or other obstructions for review and comments prior to the construction of any type dam structure in a floodway area. These plans will be reviewed to determine if adverse hydraulic or structural effects would occur within the floodway as a result of the proposed construction. Prior to an extensive engineering study for any type of water barrier in a floodway, the concept plan, proposed location, and purpose shall be reviewed by the USIBWC and MXIBWC (international projects).

Further, the Sponsor(s) are responsible for obtaining the proper water rights permits from the Texas National Resource Conservation Commission, Water Master before providing diversions structure plans to the USIBWC. Additional permits mentioned in Section IV must also be obtained.

Should such diversions be permissible, the Sponsor of the facilities shall install at his expense, the measuring devices that the USIBWC considers necessary to carry out treaty-required water measurements and water accounting.

XV CONSTRUCTION OF RECREATION FACILITIES

The Sponsor shall submit plans to USIBWC for review and approval on any proposed recreation type facilities to be constructed in an existing or approved floodway area. Each plan including hydraulic computations will be reviewed for individual and cumulative effects to determine if the proposed construction would produce adverse effects on an existing or approved floodway area.

August 13, 2003

Mr. Rob Reid
PBS&J
206 Wild Basin Road, Suite 300
Austin, TX 78746

RE: Proposed new 138-kV electric transmission facilities, Hidalgo County.

Dear Mr. Reid:

This letter is in response to your request for concerns about potential environmental effects regarding the proposal by Sharyland Utilities to construct a new 138-kV DC tie transmission line. Texas Parks and Wildlife Department (TPWD) staff appreciates your interest in natural resources and provides the following comments to assist your planning efforts.

The proposed transmission line tie would be located between an AC/DC Converter Station in Hidalgo County, Texas and the Comision Federal de Electricidad (CFE) electrical system in the State of Tamaulipas, Republic of Mexico. The Department recommends that the new transmission line be constructed within existing, previously disturbed rights-of way (ROW) and easements, rather than clearing new ROW. Avoid fragmenting contiguous tracts of dense, native brush and clearing mature trees. Please find *TPWD Recommendations for Electrical Transmission Line Design and Construction* for your assistance.

Texas Parks and Wildlife recently provided the legislature with the Land and Water Resources Conservation and Recreation Plan. That plan will serve as a guide for the management of the fish and wildlife resources of the State for the coming years. This plan designates native prairies, grasslands and riparian habitats as the most important wildlife habitats, containing the highest numbers of rare species and are the most threatened. These habitat types will be a priority for TPWD in the future. Therefore, TPWD will be concentrating on reducing impacts to these habitats and when necessary, seeking compensation for impacts to those habitats that cannot be avoided or minimized.

Minimizing clearing of native vegetation is particularly important in riparian areas, which provide valuable wildlife habitat. If the transmission line crosses riparian areas staff recommends that the ROW width be reduced or the riparian area be crossed at the most narrow part of the corridor, to minimize habitat fragmentation. Staff recommends that Sharyland Utilities minimize removal of native vegetation within the riparian zone and destruction of inert microhabitats *i.e.* snags, brush piles, fallen logs, creek banks, pools, and gravel stream bottoms

as these provide habitat for a variety of fish and wildlife species and their food sources. Staging and disposal areas should be located in previously disturbed upland areas to avoid impacts to habitats associated with the riparian and aquatic systems. Find the attachment entitled *TPWD Guidelines for Construction and Clearing within Riparian Areas.*

The Clean Water Act (CWA) sets the basic regulatory framework for regulating discharges of pollutants to U.S. waters. Section 404 of the CWA establishes a federal program to regulate the discharge of dredge and fill material into waters of the U.S., including wetlands. The U.S. Army Corps of Engineers (COE) and the Environmental Protection Agency (EPA) are primarily responsible for making jurisdictional determinations and regulating wetlands under Section 404 of the CWA. The COE also makes jurisdictional determinations under Section 10 of the Rivers and Harbors Act of 1899. If the proposed construction would impact aquatic resources then the project sponsor should contact the U.S. Army Corp of Engineers (Corpus Christi Regulatory Field Office) for determination of jurisdictional wetlands and for permitting requirements. Compensation may be required for any encroachment into these areas.

In order to protect migratory birds construction activities should occur outside the March – August migratory bird nesting season of each year the project is authorized and lasting for the life of the project. Construction activities include (but are not limited to) removal of nests or nest structures, tree felling as well as vegetation clearing, trampling or maintenance. Additional information regarding the Migratory Bird Treaty Act may be obtained from the U.S. Fish and Wildlife Service Southwest Regional Office (Region 2) at (505) 248-6879.

Line alterations to prevent bird electrocutions should be completed prior to construction as all electrocutions may not be known or documented. Incorporation of preventative measures along portions of the routes that are most attractive to birds such as riparian corridors (or other areas indicated by frequent sightings) prior to any electrocutions is a preferred alternative. If you would like more information about avian mortality prevention measures, please contact me.

Please find the list of special species that occur in Hidalgo County. Measures should be taken to ensure that rare species are not present along the route and are not subject to adverse impacts. ROW and access easements often display exceptional biotic diversity and quality by representing isolated areas free from agricultural grazing and cultivation impacts. Consequently, caution should be taken to avoid any unique and rare plant communities that may occur. More site-specific information about rare species and wildlife refuges can be obtained

from a search of the BCD database. A review of potential project impacts to endangered and threatened species can be obtained for a $50 fee. For more information about the BCD or threatened and endangered species in the project area please contact Celeste Brancel at (512) 912-7021.

If any proposed route would affect area wildlife refuges, management areas, or parks, please include that information in the environmental document and coordinate with area managers.

We appreciate the opportunity to review and comment on your project during the planning stages. Please send maps and descriptions of route alternatives when they become available. If you have any questions contact me in San Marcos at (512) 396-9211.

Sincerely,

Renée Fields
Wildlife Habitat Assessment Program
Wildlife Division

/jrf

Attachments

TPWD Recommendations for Electrical Transmission Line Design and Construction

Construction of the line should be performed to avoid adverse environmental impact and to restore or enhance environmental quality to the greatest extent practical. In order to minimize the possible project effects upon wildlife, the following measures are recommended:

1. Use wood or non-conducting crossarms to minimize the possibility of electrical contact with perching birds.

2. When possible, install electrical equipment on the bottom crossarm to allow top crossarm for perching.

3. To protect raptors, procedures should be followed as outlined in:
   "Suggested Practices for Raptor Protection on Power Lines, the State of the Art in 1996," by Richard R. Olendorff, A. Dean Miller and Robert N. Lehman; distributed by the Raptor Research Foundation Incorporated, for Edison Electric Institute.
   REA Bulletin 61-10, "Protection of Bald and Golden Eagles from Power Lines."
   USDI-EPA report entitled "Impacts of Transmission Lines on Birds in Flight," (FWS/OBS-78/48).

4. Construction should avoid identified wetland areas. Coordination with appropriate agencies should be accomplished to ensure regulatory compliance. Construction should occur during dry periods.

5. Construction should attempt to minimize the amount of flora and fauna disturbed. Reclamation of construction sites should emphasize replanting with native grasses and leguminous forbs.

6. Existing rights-of-way should be used to upgrade facilities, where possible, in order to avoid additional clearing and prevent adverse impacts associated with habitat loss and fragmentation of existing blocks of wooded habitat.

7. Because forest and woody areas provide food and cover for wildlife, these cover types should be preserved. Mature trees, particularly those which produce nuts or acorns, should be retained. Shrubs and trees should be trimmed rather than cleared.

8. All pole design should be single phase (without arms), where possible, to preserve the aesthetics of the area.

9. Lines should be buried, when practical.

10. Birds typically establish flight corridors along and within river and creek drainages. Transmission lines that cross or are located very near these drainages should have line markers installed at the crossings or closest points to the drainages to reduce the potential of collisions by birds flying along or near the drainage corridors.

11. Line alterations to prevent bird electrocutions should not necessarily be implemented after such events occur, as all electrocutions may not be known or documented. Incorporation

of preventative measures along portions of the routes that are most attractive to birds (as indicated by frequent sightings) prior to any electrocutions is much preferred.

12. Transmission lines should be designed to cross streams at right angles, at points of narrowest width, and/or at the lowest banks whenever feasible to provide the least disturbance to stream corridor habitat.

13. Implementation of wildlife management plans along rights-of-way should be considered whenever feasible.

HIDALGO COUNTY

	Federal Status	State Status
***** AMPHIBIANS *****		
Black Spotted Newt (*Notophthalmus meridionalis*) - can be found in wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods; Gulf Coastal Plain south of the San Antonio River		T
Mexican Treefrog (*Smilisca baudinii*) - subtropical region of extreme southern Texas; breeds May-October coinciding with rainfall, eggs laid in temporary rain pools		T
Sheep Frog (*Hypopachus variolosus*) - predominantly grassland and savanna; moist sites in arid areas		T
South Texas Siren - large form (*Siren* **sp. 1**) - wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods, but does require some moisture to remain; southern Texas south of Balcones Escarpment; breeds February-June		T
White-lipped Frog (*Leptodactylus labialis*) – grasslands, cultivated fields, roadside ditches, and a wide variety of other habitats; often hides under rocks or in burrows under clumps of grass; species requirements incompatible with widespread habitat alteration and pesticide use in south Texas		T
***** BIRDS *****		
American Peregrine Falcon (*Falco peregrinus anatum*) - potential migrant; nests in west Texas	DL	E
Arctic Peregrine Falcon (*Falco peregrinus tundrius*) - potential migrant	DL	T
Audubon's Oriole (*Icterus graduacauda audubonii*) - scrub, mesquite; nests in dense trees, or thickets, usually along water courses		
Brownsville Common Yellowthroat (*Geothlypis trichas insperata*) - tall grasses and bushes near ponds, marshes, and swamps; breeding April to July		
Cactus Ferruginous Pygmy-owl (*Glaucidium brasilianum cactorum*) - riparian trees, brush, palm, and mesquite thickets; during day also roosts in small caves and recesses on slopes of low hills; breeding April to June		T
Common Black Hawk (*Buteogallus anthracinus*) – cottonwood-lined rivers and streams; willow tree groves on the lower Rio Grande floodplain; formerly bred in south Texas		T
Gray Hawk (*Asturina nitidus*) - mature woodlands of river valleys and nearby semiarid mesquite and scrub grasslands		T
Hook-billed Kite (*Chondrohierax uncinatus*) – dense tropical and subtropical forests, but does occur in open woodlands; uncommon to rare in most of range; accidental in south Texas		
Interior Least Tern (*Sterna antillarum athalassos*) – nests along sand and gravel bars within braided streams, rivers & some inland lakes	LE	E
Northern Beardless-tyrannulet (*Camptostoma imberbe*) - mesquite woodlands; near Rio Grande frequents cottonwood, willow, elm, and great leadtree; breeding April to July		T
Reddish Egret (*Egretta rufescens*) - resident of the Texas Gulf Coast; brackish marshes and shallow salt ponds and tidal flats; nests on ground or in trees or bushes, on dry coastal islands in brushy thickets of yucca and prickly pear		T
Rose-throated Becard (*Pachyramphus aglaiae*) – riparian trees, woodlands, open forest, scrub, and mangroves; breeding April to July		T

	Federal Status	State Status
Sennett's Hooded Oriole (*Icterus cucullatus senneti*) - often builds nests in and of Spanish moss (*Tillandsia unioides*); feeds on invertebrates, fruit, and nectar; breeding March to August		
Tropical Parula (*Parula pitiayuma*) - dense or open woods, undergrowth, brush, and trees along edges of rivers and resacas; breeding April to July		T
White-faced Ibis (*Plegadis chihi*) - prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats		T
White-tailed Hawk (*Buteo albicaudatus*) - near coast it is found on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March to May		T
Wood Stork (*Mycteria americana*) - forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960		T
Zone-tailed Hawk (*Buteo albonotatus*) - rough, deep, rocky canyons and streamsides in semiarid mesa, hill, and mountain terrain; breeding March to July		T

*** FISHES ***

Bluntnose Shiner (*Notropis simus*) **(extirpated)** – main river channels, often below obstructions over substrate of sand, gravel, and silt; damming and irrigation practices presumed major factors contributing to decline		T
River Goby (*Awaous banana*) - clear water with slow to moderate current, sandy or hard bottom, and little or no vegetation; also enters brackish and ocean waters		T
Rio Grande Silvery Minnow (*Hybognathus amarus*) **(extirpated)** - historically Rio Grande and Pecos River systems and canals; pools and backwaters of medium to large streams with low or moderate gradient in mud, sand, or gravel bottom; ingests mud and bottom ooze for algae and other organic matter; probably spawns on silt substrates of quiet coves.	LE	E

*** INSECTS***

Subtropical Blue-black Tiger Beetle (*Cicindela nigrocoerulea subtropica*) - most tiger beetles are active, usually brightly colored, and found in open, sunny areas; adult tiger beetles are predaceous and feed on a variety of small insects; larvae of tiger beetles are also predaceous and live in vertical burrows in soil of dry paths, fields, or sandy beaches

Maculated Manfreda Skipper (*Stallingsia maculosus*) - most skippers are small and stout-bodied; name derives from fast, erratic flight; at rest most skippers hold front and hind wings at different angles; skipper larvae are smooth, with the head and neck constricted; skipper larvae usually feed inside a leaf shelter and pupate in a cocoon made of leaves fastened together with silk-

	Federal Status	State Status
***** MAMMALS *****		
Cave Myotis Bat (*Myotis velifer*) - colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (*Hirundo pyrrhonota*) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum caves of Panhandle during winter; opportunistic insectivore		
Coues' Rice Rat (*Oryzomys couesi*) - cattail-bulrush marsh with shallower zone of aquatic grasses near the shoreline; shade trees around the shoreline are important features; prefers salt and freshwater, as well as grassy areas near water; breeds April-August		T
Jaguar (*Panthera onca*) **(extirpated)** - dense chaparral; no reliable TX sightings since 1952	LE	E
Jaguarundi (*Herpailurus yaguarondi*) - thick brushlands, near water favored; six month gestation, young born twice per year in March and August	LE	E
Mexican Long-tongued Bat (*Choeronycteris mexicana*) - deep canyons where uses caves & mine tunnels as day roosts; also found in buildings & often associated with big-eared bats (*Plecotus* spp.); single TX record from Santa Ana NWR		
Ocelot (*Leopardus pardalis*) - dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas; breeds and raises young June-November	LE	E
Southern Yellow Bat (*Lasiurus ega*) - associated with trees, such as palm trees (*Sabal mexicana*) in Brownsville, which provide them with daytime roosts; insectivorous; breeding in late winter		T
White-nosed Coati (*Nasua narica*) - woodlands, riparian corridors and canyons; most individuals in Texas probably transients from Mexico; diurnal and crepuscular; very sociable; forages on ground & in trees; omnivorous; may be susceptible to hunting, trapping, & pet trade		T
***** MOLLUSKS *****		
Texas Hornshell (*Popenaias popeii*) - Rio Grande drainage from the Pecos River to the Falcon Breaks	C1	
***** REPTILES *****		
Reticulate Collared Lizard (*Crotaphytus reticulatus*) - requires open brush-grasslands; thorn-scrub vegetation, usually on well-drained rolling terrain of shallow gravel, caliche, or sandy soils; often on scattered flat rocks below escarpments or isolated rock outcrops among scattered clumps of prickly pear and mesquite		T
Black Striped Snake (*Coniophanes imperialis*) – extreme south Texas; semi-arid coastal plain, warm, moist micro-habitats and sandy soils; proficient burrower; eggs laid April-June		T
Indigo Snake (*Drymarchon corais*) - thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands if not molested or indirectly poisoned; requires moist microhabitats, such as rodent burrows, for shelter		T
Keeled Earless Lizard (*Holbrookia propinqua*) – coastal dunes, barrier islands, and other sandy areas; eats insects and likely other small invertebrates; lays clutches of 2-7 eggs March-September (most May-August) in soil/underground		

	Federal Status	State Status
Northern Cat-eyed Snake (*Leptodeira septentrionalis*) - Gulf Coastal Plain south of the Nueces River; thorn brush woodland; dense thickets bordering ponds and streams; semi-arboreal; nocturnal		T
Speckled Racer (*Drymobius margaritiferus*) - extreme south Texas; dense thickets near water, Texas palm groves, riparian woodlands; often in areas with much vegetation litter on ground; breeds April-August		T
Texas Horned Lizard (*Phrynosoma cornutum*) – open arid or semi-arid regions with sparse vegetation; grass, cactus, scattered brush or scrubby trees; burrows into soil, uses rodent burrows, or hides under surface cover		T
Texas Tortoise (*Gopherus berlandieri*) - open scrub woods, arid brush, lomas, grass-cactus association; open brush with grass understory preferred; shallow depressions at base of bush or cactus or underground burrow or hides under surface cover		T

*** VASCULAR PLANTS ***

Bailey's ballmoss (*Tillandsia baileyi*) - epiphytic on various trees and shrubs; flowering February-May		
Chihuahua balloon-vine (*Cardiospermum dissectum*) - shrublands on gravelly soils along Lower Rio Grande Valley; flowering July-September		
Falfurrias milkvine (*Matelea radiata*) - endemic; known only from one collection from Falfurrias; habitat unknown; flowering (May?) June		
Gregg's wild-buckwheat (*Eriogonum greggii*) – grasslands and brushlands on gypsum-capped hills; flowering in summer?		
Mexican mud-plantain (*Heteranthera mexicana*) – aquatic; ditches and ponds; flowering June-August		
Runyon's cory cactus (*Coryphantha macromeris* **var.** *runyonii*) - endemic; low hills and flats on gravelly soils in Tamaulipan shrub communities along the Rio Grande		
Runyon's water-willow (*Justicia runyonii*) - calcareous silt loam, silty clay, or clay in openings in subtropical woodlands on active or former floodplains; flowering (July-) September-November		
Small papillosus cactus (*Echinocereus papillosus* **var.** *angusticeps*) - endemic; sandy to gravelly soils in grasslands or mesquite-acacia shrublands		
St. Joseph's staff (*Manfreda longiflora*) - endemic; various soils (clays and loams with various concentrations of salt, caliche, sand, and gravel) in openings or amongst shrubs in thorny shrublands; on Catahoula and Frio formations, and also on Rio Grande floodplain alluvial deposits; flowering in September		
Star cactus (*Astrophytum asterias*) - gravelly saline clays or loams over Catahoula & Frio formations, on gentle slopes & flats in grasslands or shrublands; flowering in May	LE	E
Texas ayenia (*Ayenia limitaris*) - woodlands on alluvial deposits on floodplains and terraces along the Rio Grande; flowering throughout the year with sufficient rainfall	LE	E
Texas windmill-grass (*Chloris texensis*) - endemic; sandy to sandy loam soils in open to sometimes barren areas in prairies and grasslands, including ditches and roadsides; flowering in fall		
Vasey's adelia (*Adelia vaseyi*) - subtropical woodlands in Lower Rio Grande Valley; flowering January-June		

	Federal Status	State Status
Walker's manioc (*Manihot walkerae*) - periphery of native brush in sandy loam; also on caliche cuestas?; flowering April-September (following rains?)	LE	E

Status Key:

LE, LT	Federally Listed Endangered/Threatened
PE, PT	Federally Proposed Endangered/Threatened
E/SA, T/SA	Federally Listed Endangered/Threatened by Similarity of Appearance
C1	Federal Candidate for Listing, Category 1; information supports proposing to list as endangered/threatened
DL, PDL	Federally Delisted/Proposed for Delisting
NL	Not Federally Listed
E, T	State Listed Endangered/Threatened
"blank"	Rare, but with no regulatory listing status

Species appearing on these lists do not all share the same probability of occurrence. Some species are migrants or wintering residents only, or may be historic or considered extirpated.